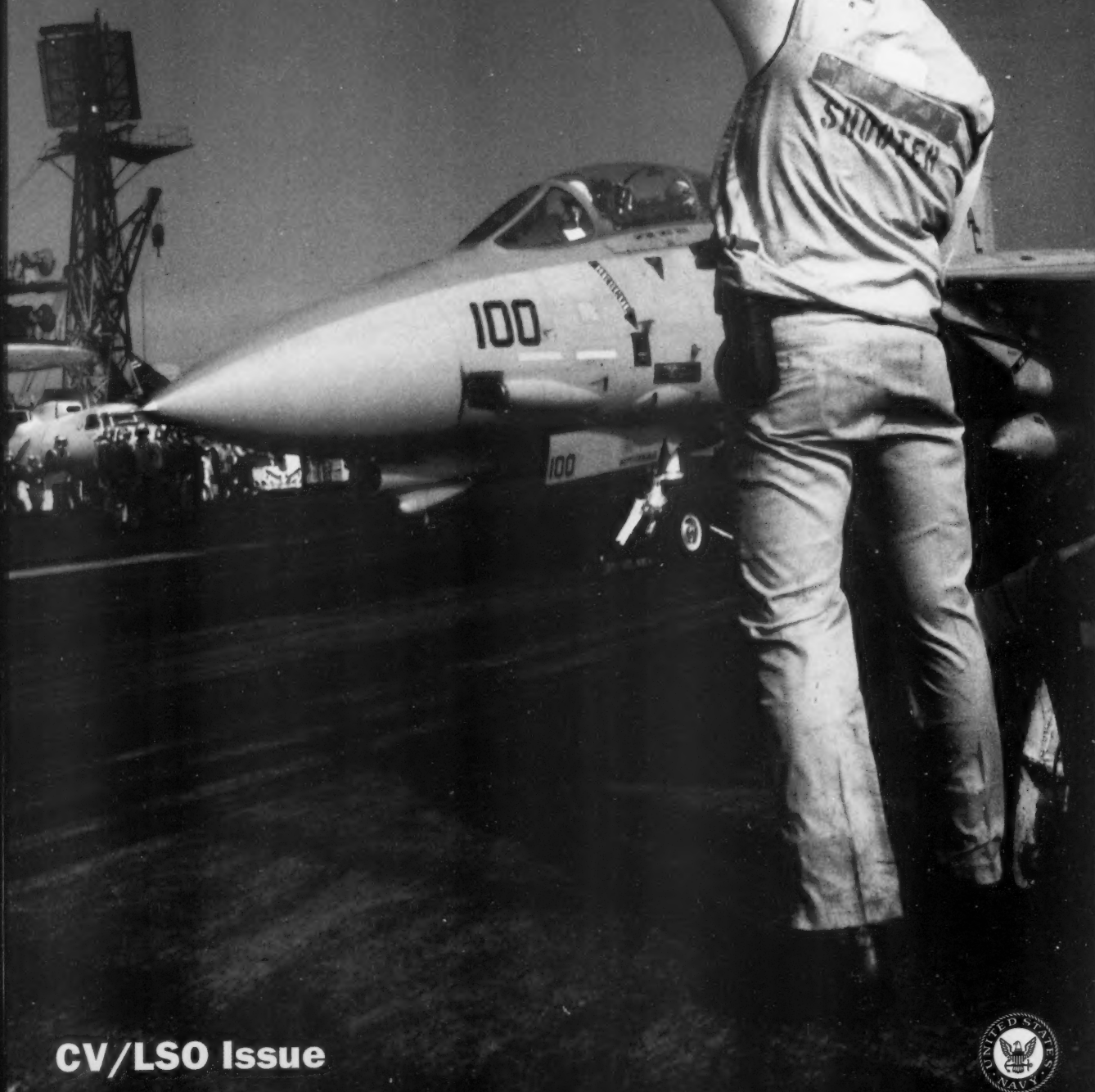


September/October 1994

# approach



**CV/LSO Issue**



# ***I Found a Weak Link***

**S**ince 1986, the Navy has required the senior member of a Class A mishap board to be from outside the mishap squadron's chain-of-command. This requirement was designed to remove undue influence from the board's deliberation. It was probably unnecessary in the majority of cases, but it has helped ensure all mishap boards are more objective. By the same token, most officers openly report hazards through our less formal reporting procedures, such as *Approach* and HAZREPs.

I am concerned, however, that some commands are hiding information to avoid looking like they've failed as aviators, leaders, and managers. When a command purposely hides information, it may achieve its desire not to look bad, but it is a grave injustice to the rest of us who have to fly the same airplane. It is also a weak link in the system.

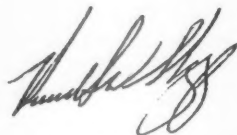
I have heard of commands not releasing HAZREPs because, "This'll make us look bad." Maybe, but what if the HAZREP identified a procedure that was inherently bad, and therefore prone to causing other people to make the same mistake?

One safety officer told me his command refused to release an *Approach* article because the command didn't want the squadron to get

a bad reputation. The author is going to have to make this call, but we don't require feature articles to be chopped through the command chain.

On rare occasions a command will punish authors of *Approach* articles. We rarely print anonymous articles because we want an author to feel strongly enough about something to put his name to it. Since our authors tend to put themselves on report, we hate to see them pursued by someone in their command structure because of something they wrote. (We don't live in a fantasy world here—not a big one, at least—so if you have something to write that you feel you cannot sign, remember that "Anymouse" is still available. Just look for the green-and-white forms.)

I know this lesson is as old as the airplanes we fly, but I think we may have forgotten it in the heat of the drawdown. Yes, putting yourself on report can make you look bad. However, we must be honest and report problems so that others can learn from our mistakes and preserve our people and material. The above examples are all instances of officers putting their careers ahead of the needs of the Navy and the lives of fellow aviators.



Lt. Ken "Boz" Skaggs

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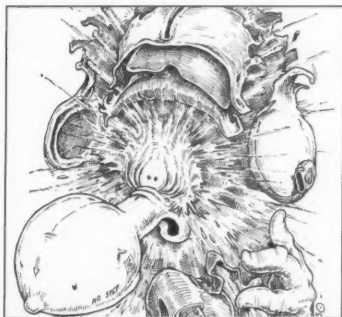
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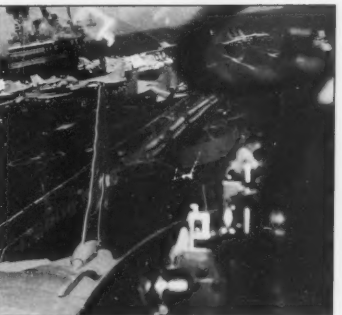
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# Helmet

By Lt. John Burge

**A**lmost before the anchor came up from our last port call prior to entering the Persian Gulf, you started to see them in the passageways. They spread like a flu bug. First, just a few. Then everyone had to have one. At first it was the bald-head style. Soon others followed with their own version of the cruise haircut. Most were just very short haircuts, crew cuts. Our squadron wanted to stand out from the crowd. We decided to get flattops.

It wasn't a big deal for me. I had one when I was little, and I remember dad going to great pains to get the perfect flattop. You had to use the right butch cream and the human curry comb to make it stand straight up. It was quite a sight when done properly, and I was determined to repeat the process.

Eagerly, I went down to the barber shop, hoping to get the same barber who had practiced on my squadronmates the day before. I figured that by this time he should know what he was doing and have all the bugs ironed out. Luckily, he was available. He took obvious pride in his work and was determined to make me look as good as my hair would allow.

After several sprays from his bottle, I asked if he had any hair cream.

"All out, sir." I asked if the ship's store had any. He said he thought they might have some stuff that would make my hair stand up. I went to get some so the barber could fix my "doo" right.

After a quick trip to the store and then my room to apply the new-found gel, I returned to the barber chair. He was kind enough to make a few more passes with the clippers but to no avail. My hair just wasn't cooperating. I thought it needed just a few days of training. A flight with my helmet to mash the hair into place might do it.

The next day, I showed up for my flight with my hair beginning to take shape with the gel. All my buds were impressed. We briefed, then went off to preflight and strap in.

Everything went normal up on the flight deck. Standard noise and exhaust fumes swirled around. Couldn't wait to get in and close the canopy to provide a safe cocoon for my BN and me. I lowered my visor, hooked up my oxygen mask, and began to breathe fresh air. Eyes still burning from the fumes, I reached up (as I had several times in the past) to pull my mask from my face to allow oxygen to flow under my visor and clear the fumes.

The resultant explosion literally blew the helmet apart and off my head. Bits and pieces were strewn all over the cockpit and my BN. I was in shock from the sudden flash of heat and deafening sound of the explosion. I sat there for what seemed like an eternity, half of an oxygen mask in my hand and bits of a helmet in my lap. My BN just stared wide-eyed, gesturing to the flames engulfing my head. Luckily, he had just put on his gloves and was therefore able to quickly extinguish the flames with his hands.

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**I reached  
up to pull  
my mask  
from my  
face to  
allow  
oxygen to  
flow under  
my visor  
and clear  
the fumes.**

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# Fire

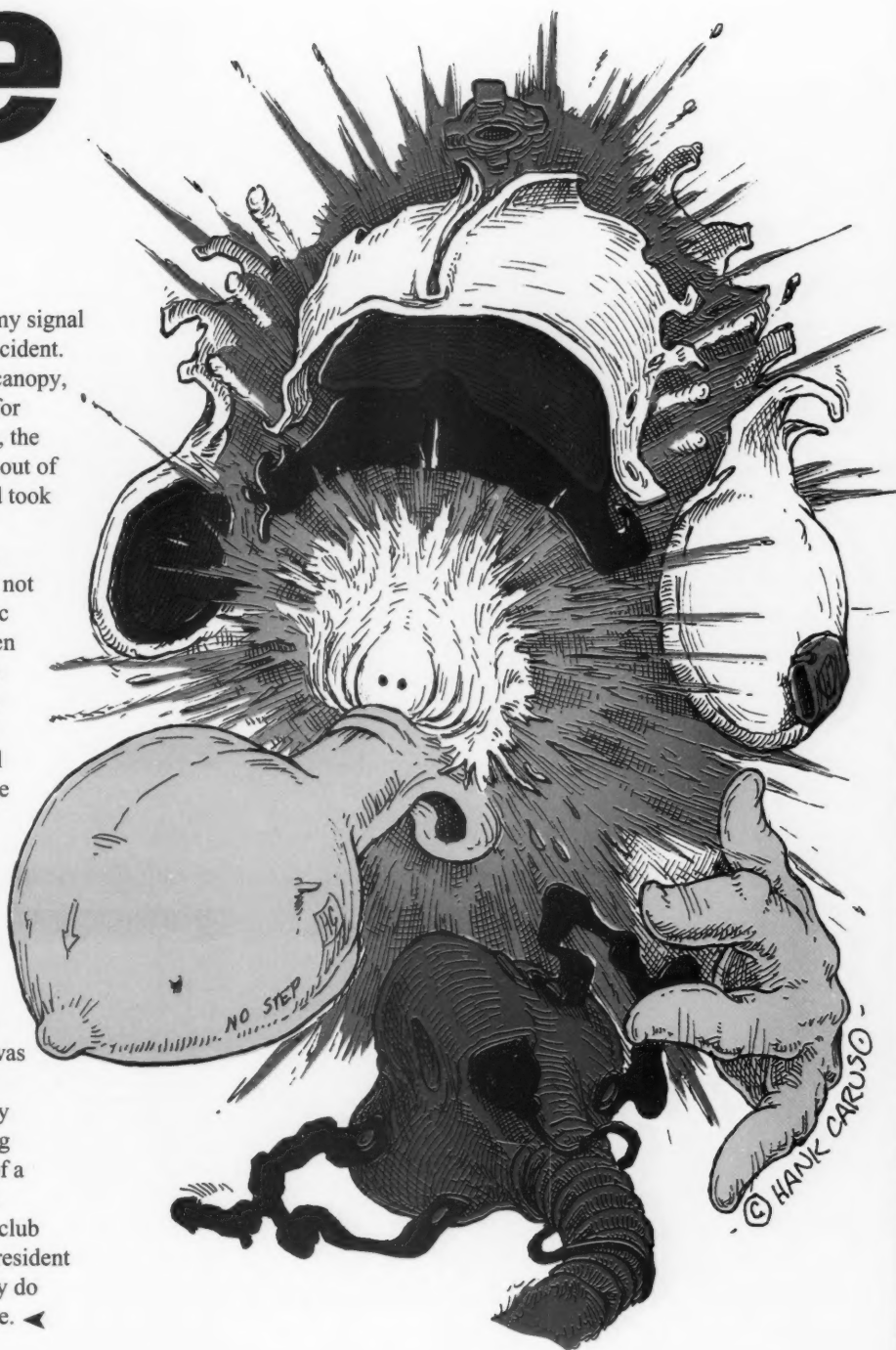
The plane captain, waiting for my signal to start the aircraft, witnessed the incident. He immediately began to open the canopy, while the flight-deck chief radioed for medical help. Within a few minutes, the fire was out. The deck crew got me out of the cockpit and onto a stretcher, and took me to medical.

I had second- and third-degree burns on my scalp. Had the helmet not come off when it did, melted plastic and other materials would have been affixed to my exposed skull, which surely would have complicated the healing process. Luckily, my skull cap easily peeled off. My beautiful haircut was gone, along with a large portion of my scalp.

Even though the fire didn't last long (thanks to my BN), the damage was significant. In case you haven't figured it out yet, the explosion was caused by a petroleum product coming in contact with oxygen, a very deadly mix. I had failed to read the label on the bottle of hair gel. It was clearly marked that the product contained petroleum jelly. Because of my intense desire to have the best looking hairdo, I got careless. Now, instead of a great cruise "doo," I only have scars.

I have, however, found the hair club for men and hope to become their president after my tour in the Navy. I currently do testimonials for them in my free time. ◀

Lt. Burge flies with VA-196.



# *I Gave Up Counting the Bad Signs*

By LCdr. Mark Hodge

**F**rom my first days in flight school, my salty instructors always warned me, "Don't put yourself in 'the box'." I never forgot that advice, and many times during my flying career, I avoided entry into this area. I always thought that the box was readily apparent and that aircrews chose whether or not to risk putting themselves into it. However, the box is an insidious, transparent trap that awaits all aviators, especially those who fly from aircraft carriers.

My one-way trip to the box began on a pinky launch, night recovery AIC hop during the last phase of work-ups before a north Atlantic mini-cruise. The ship was not actually operating EMCON, but the EMCON recovery would provide training for the wing.

We launched as Dash 2 of a section and completed the briefed mission. Since I was the only member of the flight who had participated in a night EMCON recovery in this air wing, we briefed that my nugget pilot and I would lead the flight during the recovery.

It didn't take long for the problems to start. After arriving at marshal, and confirming our location with the E-2, we noticed that there were no other aircraft in sight. (Bad sign No. 1). The hairs stood up on our necks, and the perceived cockpit psi increased. The weather was bad and deteriorating quickly.

Everyone was surprised when the recovery began using EMCON procedures. When the first two aircraft out of marshal couldn't find the ship and began singing the blues on the UHF (bad sign No. 2), the cockpit psi increased.

Eventually, we pushed from marshal, and—you guessed it—no boat in sight. (Bad sign No.3). En route to the ship from marshal, our wingman got vertigo and departed the section. He called the ship to end the EMCON game and to have CATCC take control of the recovery.

"This is really bad stuff going on here," I thought. "I hope it doesn't psyche out my nugget pilot. He's already working his tail off." (Bad sign No.4)

Finally, CATCC joined in and we hooked in for our first pass with a fuel state of 7.5. We were under positive control, ready for what I hoped would be just another night pass with a nugget. The cockpit psi was still abnormally high. My pilot knew he was being watched closely by the squadron and air-wing heavies, which added to his anxiety.

5

Our first pass started with a large overshoot, from which we never recovered, resulting in a waveoff. On our next pass, we called the ball at "tanker state" after an unusually long downwind, waiting for a hole to hook in. (Most of the air wing was in the pattern now, recovering from the aborted EMCON recovery.) Another poor start prompted the LSOs to award us another waveoff, and away we went looking for the tanker.

Just like in the books, the tanker was hawking us, and we picked him up on the waveoff. The tanker (with us closing to join) responded to mother's instructions of "Steer 270. When plugged and receiving, return overhead." Sounded like a good plan to me since the briefed divert was 270 degrees at 298 miles.

Since the air wing's tacnotes called for EMCON tanking to occur overhead, I assumed that the big boys had the same idea, which was to get enough gas to go to the beach and return in the morning when the weather was better and the cockpit psi was closer to normal limits.

The weather around the ship was now just plain bad, preventing a joinup until 60 miles away from mother. (Bad sign No. 5) Breaking out between layers and going in and out of dense rain clouds, we finally rendezvoused with the A-6E tanker. After plugging, we pushed the basket up and waited for a green light. When the light didn't come on—indicating an inoperative buddy-store (bad sign No. 6)—the hop was no longer in the category of another night in the barrel with a nugget. It quickly became a one-trip to the "box."

6

We had 2,100 pounds of fuel, and were 60 miles from the ship, which was strategically placed under a squall line as only CVs can do. The nearest divert was 230 miles away, and the cockpit psi was approaching new records.

After multiple engagements, we convinced ourselves that our F-14 was not the problem. The A-6 crew confirmed that the buddy store wasn't working, and we called mother to launch the alert tanker. Unfortunately, the alert tanker had shut down because the pilot thought he was about to suck up a not-too-alert purpleshirt. It would take

5

LCdr. Tom Prochilo



**10 minutes  
in the  
parachute,  
one hour in  
the water,  
30 minutes  
in the helo,  
and an  
eternity in  
medical...**

15 minutes to restart and launch the tanker. (I'd given up counting "bad signs.")

With our state at 1.2, we continued toward the ship to expedite the rendezvous with the alert tanker. After a superhuman effort, the tanker launched and joined up, as we flew in and out of clouds with thunderstorms. As we passed the lead to him so that we could move to the basket, lightning struck both aircraft. When my vision returned, I saw 800 pounds remaining. Now we couldn't see the tanker in the thick clouds.

We continued to close, using radar azimuth and elevation as guides. After the range counter read zero, and with 600 pounds left, we decided to keep closing until we hit something—hopefully the basket.

We broke out of the clouds, and I could see the tanker just ahead. Our probe was only feet from the basket. Ten more seconds and we would be in, unless our engines flamed out—which they did, one after the other!

Our fate was definitely sealed. Although not the outcome we had hoped for, we were now in complete control of our destiny. After a position call to mother (using the

emergency generator that was cycling on and off) and a discussion of our ejection plan, we punched out. Ten minutes in the parachute, one hour in the water, 30 minutes in the helo, and an eternity in medical ended our one-way trip to the box. All things considered, we were very lucky. Although our careers and egos were a little dented, no one (including the grape in front of the alert tanker) was hurt.

The ship, air wing, squadron, and my pilot and I learned many valuable lessons that night. For one thing, we shouldn't have launched. This was going to be a tough night for everyone, and the bad weather made it a "varsity" situation. My pilot was still developing his skills around the ship. He wasn't ready for these conditions.

We should have cried "Uncle!" sooner. No training mission is worth losing a life or an aircraft. If the situation deteriorates beyond a reasonable level, fess up.

We also should have remained overhead for the tanker. It was clear enough below 2,000 feet to try a rendezvous and to tank. Not fun, but better than leaving the area of the ship to look for a patch of clear weather. Speak up if you have a better plan. You're the one in the arena, and you know better what's happening than the people in Ops or CATCC.

Finally, we shouldn't have expected airborne gas. I never considered that we wouldn't be able to get gas until our fifth futile plug. Although blue-water ops are inherently a tanking-vs-divert mindset, it pays to always have options. ◀

LCdr. Hodge was with VF-11 at the time of this story. He had an instructor tour with VF-101, and is now a SAR with VF-202.





# Miss Piggy's Revenge

By Ltjg. Stephen C. Miller

**A**s one of the squadron LSOs, I noticed my squadron's boat grades declining over the past few months. At first I passed it off as pilot ability, but when it started happening to me, I knew that assumption was wrong. I started looking back in the logbooks of the pilots who were having difficulties. Everyone was averaging about 15-25 hours and one trap per month, not unusual figures for VRC pilots. Then, I started thinking back to some of their more colorful performances at the boat.

In one case, a nugget pilot rode out to the boat in the back of a US-3. It wasn't on the flight schedule that way, but in the morning brief, the CQ order changed. After three hours in the back seat, he hopped up front at 3,000 feet overhead the ship and was at the controls for his first fleet trap.

He came into the break, then rolled into the groove with 50 knots of wind, 10-foot pitching deck, MOVLAS station 2. Sixteen seconds later, he earned himself a cut pass—more accurately, everyone involved earned a cut pass, but he got the honor of having it go next to his name on the greenie board. Well, even your average O-4 could figure out what happened there, but it's not always so cut and dried.

My case occurred during a logistics flight while on detachment. I rolled into the groove as one of the most solid boat players in the squadron. Then the ball started climbing, and no amount of idle or DLC would stop it, or so I thought.

I got one call from the LSO: "Wave off! Wave off!" which turned out to be just enough power to bring me down nicely into a 3-wire. Was it pilot error? Absolutely, but not just for poor ball flying. Looking through my logbook, I saw that I had flown less than 20 hours in the previous four months. I had only 10 traps in the last 11 months, only three of which were within the last five months.

I flew one FCLP period 10 days before this pass. Then, on the last day of my currency, me and my can-do attitude greased one into a 3-wire, at full power. My error was

letting myself cruise along at the bare minimums of currency for months, then trying to work behind the boat.

How did I get painted into such a corner? Ops tempo and aircraft availability pre-empted refresher CQ immediately before this det. Fortunately, we had all gotten two touch-and-goes and two traps about a month before. We did one FCLP period while on detachment, but once again, because of the ops tempo and aircraft availability, I was the LSO, not one of the pilots. We only had time to fly two pilots during the det FCLP period, so we flew one guy whose currency was about to expire, and a new guy who needed the practice. Besides, I was an LSO, and a good ball flyer. I needed the practice least, and I was still good to go according to NATOPS.

What were we thinking when we shoved that new guy in the back for three hours, then offered him up as a sacrifice? What was I thinking when I fired up my "Pig from hell" and headed for the boat, barely qualified for months on end? I know what we were thinking: "It's legal according to NATOPS. Get two and two on the nugget so he's current for the next det. Miller gets the trap today because it's his last day of currency."

Who is to blame? I debriefed the CO, Ops O, aircraft commanders, OINCs, and individuals involved on the squadron's recent trend at the boat, as well as some specific cases. All of them quickly accepted responsibility, but at the time, none of them had enough facts to see the big picture in time to break the chain of events... except for the individual near-mishap pilot.

Everyone involved knew that his part was by the book, but only the individual in each case could have seen that all of the legal ingredients were becoming a dangerous brew. The nugget would have had a hard time speaking up, and I couldn't say, "I shouldn't go today," especially without a rule or regulation to back either of us up. But, that's our job and our responsibility. ◀

Ltjg. Miller flies with VRC-50.

**I got one  
call from  
the LSO:  
"Wave off!  
Wave off!"**

# Fat On Gas but Not

By Lt. Ted Williams



PH3 Douglas E. Houser

**W**e were onboard USS *Saratoga* off the Nova Scotia coast in late winter. We expected cold weather with low ceilings and visibility before we even left Mayport. The weather brief before the launch predicted a cold front rolling through soon after recovery. Currently, the weather was clear and a million. Dressed in our dry suits, we manned up for a beautiful Case I day launch.

I quickly joined my lead, and we flew toward the mainland to begin our fantastic low-level. As we headed northeast, we could see the cold front about 60 miles off our nose as a great wall climbing to at least 40,000 feet. We tried going through and looking for clear weather down low.

Just above 5,000 feet, I was doing all I could to hang onto my lead through the thick clouds.

"Good thing we thoroughly briefed our lost-sight procedures," I thought.

We started picking up slight to moderate icing, and with no hope of breaking out, we called "uncle" and headed back toward the ship. After switching the lead and unsuccessfully trying to find a clear area to practice Tacform, we decided to knock it off and head for mother.

The ceiling had now set in at about 5,000 feet overhead the ship, still no sweat for Case I as Marshal had directed. There was a photo-ex back at the ship with a contingent of more than 20 ships in a tight formation. We were fat on gas as we circled overhead at 4,000 feet, taking our own photos of the international collection of ships in formation. We weren't concerned with conserving fuel, even though we were delayed a bit, because the

# On Options

ship couldn't maneuver for winds with so many other ships nearby.

After about a 15-minute delay, the launch began. We still looked good on gas, so dumping was no longer necessary with the delay. The ceiling and visibility were quickly diminishing, and we were forced down to 3,000 feet to maintain VFR. Now almost all of the 18 recovery aircraft were at 3,000 feet or below! Another few minutes and the visibility was now less than two miles and dropping fast with the ceiling. All the aircraft were quickly being squeezed together in an attempt to maintain sight, as the opposite side of the circle was no longer visible.

As CATCC scrambled to send us to marshal, we all went IMC. My wingman and I were at 3,000 feet with 16 other aircraft, and could not see any of them. We had managed to let the weather come in on us and were forced to bet on the "big sky, little plane" theory.

I leveled my wings, headed out ahead of the ship, and began to climb, feeling quite uncomfortable but seeing no other solution. What seemed to be an eternity was in reality only two or three minutes until CATCC could get us marshal instructions and vectors clear of other aircraft.

At 17,000 feet in the goo, we were established in marshal, safely clear of other aircraft but no longer fat on gas. My wingman was at 18,000 feet, with the same fuel predicament.

With moderate icing from about 5,000-13,000 feet, we were forced to start thinking about finding a tanking altitude if we did not get aboard soon. The ceilings were below 500 feet with tops above 40,000 feet, so tanking was not much of an option. Nor were divers, since all divers had gone zero-zero with the cold front's passage.

After being one of the last aircraft to push from marshal, we started our descent with an estimated fuel state of tank-plus-3 on the ball.

The LSO gave the infamous call, "99, turn on landing lights," telling us not to expect to see the ship until after the ball call. The first time down the chute, we had to make a 360 for a priority low-state Hornet. OK, now we were looking at tank-plus-2 on the ball.

On the second try, we managed to get to the in-the-middle position before being waved off for 30-degree starboard winds. Tank-plus-1 now, but we were getting closer to the ship with each pass. A good trend. We accepted a 3.5-mile hook with our fuel state as the ship tried to find the winds.

With the ship in a turn, we broke out of the clouds at three-quarters of a mile in a 30-degree right bank, and with some valuable LSO assistance trapped with an OK 4-wire.

Do not underestimate the weather. I thought we were fat on gas for a Case 1 recovery, so I never bothered to think max conserve, putting both myself and my wingman in a difficult situation when we suddenly switched to Case 3.

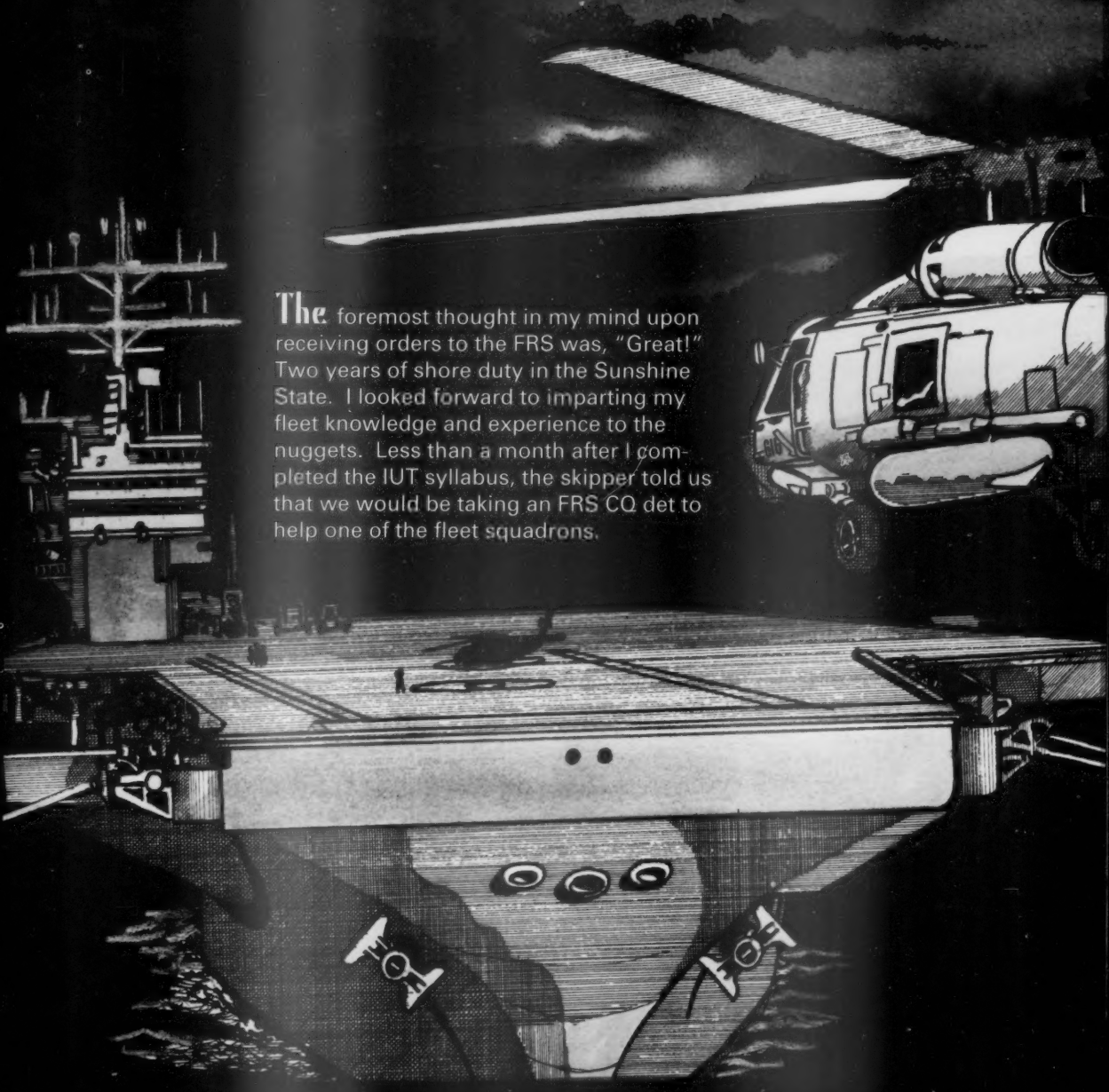
Also, always have a backup plan for when the weather does go bad. We knew the cold front was coming, but assumed we would be in the wardroom debriefing over a couple of sliders before it ever reached us. I never thought that the cold front would catch us in time, so I wasn't concerned. When it did, I was forced to bet on the "big sky, little plane" theory, which was no fun. ◀

Lt. Williams flew with VAQ-132. He is currently assigned to VAQ-138.



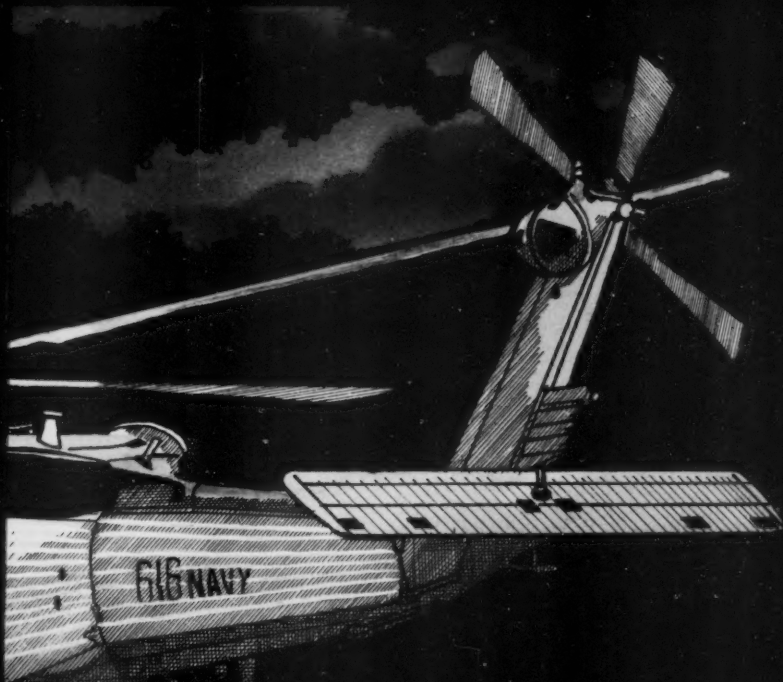
# *Shame on You*

by Lt. Robb Eidsmoe



**The** foremost thought in my mind upon receiving orders to the FRS was, "Great!" Two years of shore duty in the Sunshine State. I looked forward to imparting my fleet knowledge and experience to the nuggets. Less than a month after I completed the IUT syllabus, the skipper told us that we would be taking an FRS CO det to help one of the fleet squadrons.





Since I was fresh from sea duty, I was a prime candidate to go along. It would be a great chance to show the nuggets the way it really was in the fleet.

Everything seemed to be progressing well during the det, although the winter weather around the Tidewater area was less than ideal. Dry suits were mandatory, and it was the first time I saw snow on the deck. This particular event was a day-into-night SAR training flight.

We completed the hop, then joined our playmate in Starboard Delta waiting for Charlie time. The last fixed-wing recovery was complete—most had to bingo to the beach (it was an ugly recovery)—and we were anxious to land after having been in the cockpit almost four hours. Surprisingly,

the carrier turned and began to run downwind.

The Air Boss called to say that the winds were down the angle. My playmate was ahead of me and was assigned spot 2. I had spot 1! Incredible! Here it was, pitch black, a nugget in the seat next to me, no CCA given, and now I had to make a bow-to-stern approach.

I called the other aircraft on squadron common and told him that I didn't think this was legal. Unfortunately, I could not furnish the reference nor remember whether you "shall" or "should" land via the stern using the OLS (ball). My playmate, who happened to be the OINC, didn't know either. He proceeded with the approach to an uneventful landing.

Although I completed my approach and landed without incident, I was extremely angry with myself for not knowing if that was legal, and for not challenging Tower on something I felt was unsafe.

After landing, I consulted the CV NATOPS about helicopter night recoveries. I found that night and IMC helicopter recoveries shall be made on the angled deck, from astern, using the OLS. Shame on my OINC for not knowing, shame on the Boss for issuing those landing instructions, but most importantly, shame on me for not knowing.

It's easy to drop the pack and settle into the shore duty mode, but you can never tell when you will need to pull out certain procedures. Don't assume your superiors know more than you do. ◀

Lt. Eidsmoe flew with HS-14, then joined the staff of COMCARGRU-5. He is currently assigned to the staff of the Assistant VCNO.

# On and On

By Lt. Steven Trent



**It** was a typical moonlight night off the Southern California coast. It would be a great night to strap on the War Prowler and add to my already impressive total of 15 night traps. My squadron was halfway through work-ups, and I felt comfortable flying with my crew. Tonight was going to be a special night for my frontseater: this would be his first night carrier landing.

The brief went quickly. It was another AIC mission, nothing new. We covered radio calls and checklists for the new guy up front. As we manned up on the flight deck, I noticed the SoCal scud layer starting to form at 1,500 feet. Oh well, so much for that nice moon.

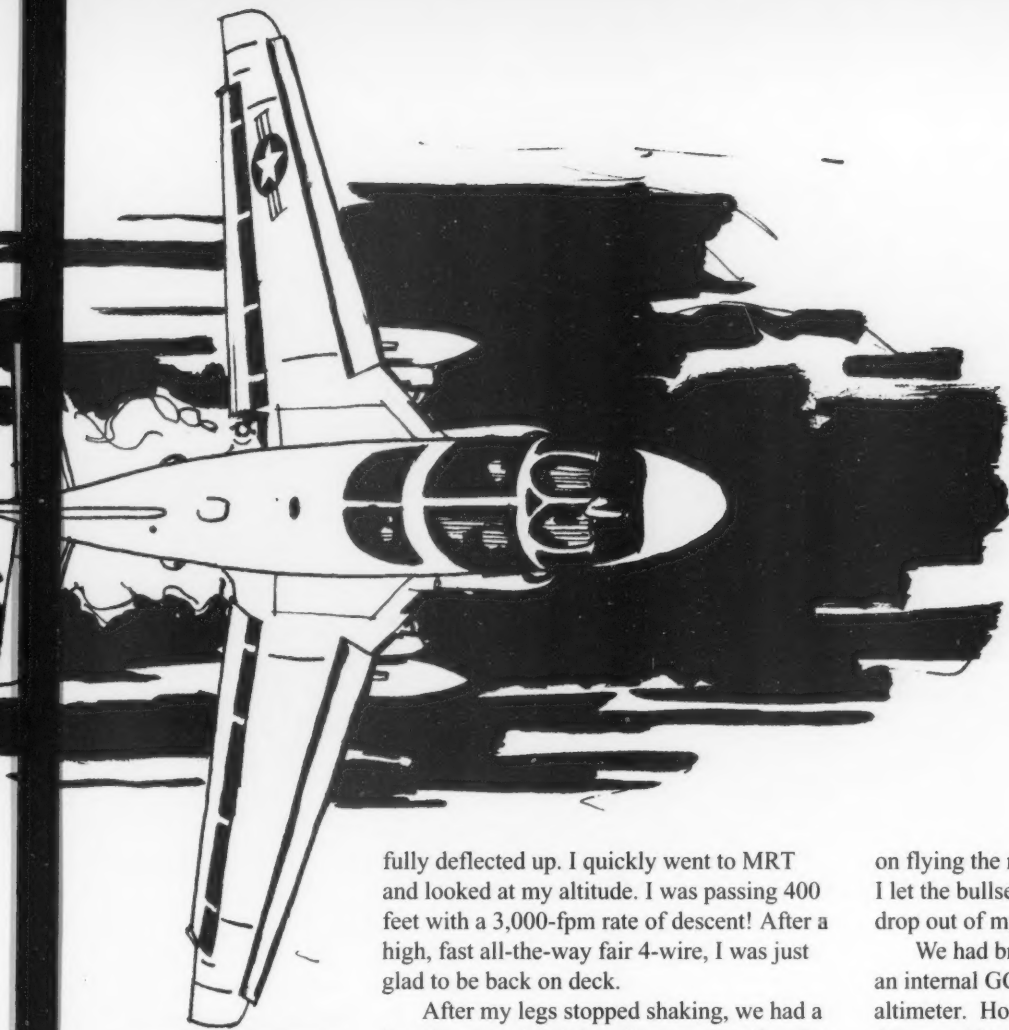
After an uneventful mission, we headed for marshal, where I had more than enough time to think about the upcoming (and now much darker than expected) night trap. It had been six days since my last night trap, so I thought about my routine for getting back aboard (hopefully on the first try).

After calling our point on time, we headed down the chute. The new guy up front was doing all of the right stuff and sounded like a pro on the radios. Descending through

the overcast at 1,700 feet, we started hitting a little turbulence, and I started to get vertigo. I didn't think it was that bad, so I concentrated on the attitude reference and kept the fact to myself. Descending to 1,200 feet put us below the overcast, and I quickly got my gyros caged. We dirtied-up at 10 miles and had needles at six miles. Pushing over on the glideslope at three miles was normal and Approach called us "on and on." At two miles, I suddenly got another case of vertigo, although this time it was much stronger. For some reason, the sight picture of the ship and my own seat-of-the-pants feeling of aircraft attitude did not match up. I thought I was pitched over, looking up at the ship. To try to solve this unnerving feeling and get myself to a good start, I put all of my concentration into flying the best needles I possibly could. The next call we heard was from CAG paddles.

"At a mile-and-a-half, you are low. Power now!"

It took a split-second for this to all sink in. Yes, I was at a mile-and-a-half, but I had centered needles. A quick glance at the bullseye showed me centered on azimuth and



**We had a lengthy crew debrief to discover exactly what had broken down to put four aircrew so close to the water.**

fully deflected up. I quickly went to MRT and looked at my altitude. I was passing 400 feet with a 3,000-fpm rate of descent! After a high, fast all-the-way fair 4-wire, I was just glad to be back on deck.

After my legs stopped shaking, we had a lengthy crew debrief to discover exactly what had broken down to put four aircrew so close to the water. A call to CATCC revealed that something was wrong with the SPN-42. They said they were about to call us the same time paddles did, but I still thought this was unsat. We picked the flight apart and came up with a series of events that combined to almost put us in the water.

It was the frontseater's first night trap. During the brief, we covered radio and approach procedures ad nauseam. One of the things we did not cover was what his scan was going to be on the approach or on the ball. As a result, he was looking out at the ship helping me with lineup. If I had told the other crewmembers that I had vertigo, they would have been alerted to back me up. My scan broke down, and I was so bore-sighted

on flying the needles to cure my vertigo, that I let the bullseye as well as altitude and VSI drop out of my scan.

We had briefed for the back-seaters to do an internal GCA, using the TACAN and altimeter. However, we had not briefed when they would tell me that I was out of parameters. They told me that I was about 150 feet low at two miles, but felt I was correcting back to glideslope. As a result, they did not inform me of this fact on the approach.

The only thing that broke this chain of events was a heads-up call by paddles. I would have flown right into the water thinking that I was on and on. All of these oversights are small and insignificant taken by themselves, but put together they added up to something that could have killed us.

How good is your crew coordination on the small items? Do you really know how your crew is going to react to the small and insidious out-of-the-ordinary situations? If it is only good enough to get you through the flight, it is not good enough. ◀

Lt. Trent flies with VAQ-139.



The day began like all last days on the boat: 18 fly-off aircrew gathering packed bags after a night of restless sleep. The brief included a grand plan for our squadron to fly over home field in a nine-plane formation behind two other squadrons in a similar grouping.

After the "show pass," we would spin it once around the field and delay until the field was clear for our break. In the event weather prevented our show, the back-up plan was to fly section approaches for left and right landings, or individual GCAs if the weather was below circling minimums. We even briefed the plane captains to check the anti-skid, since we were rolling 8,000 feet to a stop on landing instead of taking the arresting gear. We thoroughly covered the effects of carrier pressurized tires and hydroplaning on a wet runway.

As the time to man up approached, the weather looked more and more like we would have to cancel the show pass because of low ceilings. It wouldn't be as impressive a fly-in, but as long as we could see our families, everything would be just fine.

We had arranged section join-ups overhead the ship with staggered push times to avoid saturating Approach with 27 aircraft. The plan was working well, except for the detours each section took around building thunderstorms. The spacing between aircraft was becoming a bit irregular as different sections chose their own routes through the clouds. The two lead aircraft took lightning hits during the penetration.

As we checked in with Approach, we began receiving vectors to descend and begin a section approach because the weather was



# Thought Sliders Were Something You Ate!

By LCdr. Jim Firanzi

right at circling minimums. I signaled my wingman to dump; we had briefed a landing with no more than 6,000 pounds of fuel to eliminate long rollouts on the short runway.

After a quick radio check, I discovered my wingman had received a good anti-skid bit check, and I had not. With this information, I set him up on the right side for landing on the 8,000-foot runway. Our plan was to split the dual runways as we broke out of the clouds, or execute a section missed approach and separate for individual approaches.

While we were on final, someone transmitted on base that we should make individual approaches to the long runway, but we were already committed to our section approach. We broke out right at circling mins and separated for left and right landings. The runway was wet, though I could not see any standing water. My aircraft was slowing normally, using aft stick and spoilers, so I was not about to touch the brakes until we were below 80 knots. I looked over at the short runway and saw a jet from the previous section sitting sideways almost off the end, fouling the runway.

Just then, my RIO said over the ICS, "Looks like we've got a slider."

I quickly looked back at my wingman and watched him spin 180 degrees in the last

1,000 feet of runway as his carrier-pressurized tires lost traction.

It turned out that he had slowed normally until reaching the landing area of the opposite runway, which was black with rubber deposits. Despite being below 20 knots, the F-14 completely lost traction and directional control, and began to spin. Fortunately, the pilot had the presence of mind to add power and stop just short of the other aircraft. I didn't have any problems stopping on the 12,000-foot runway, but later found out that the lead aircraft had started sliding on the long runway. This prompted the CO's call to all remaining aircraft to avoid the short runway.

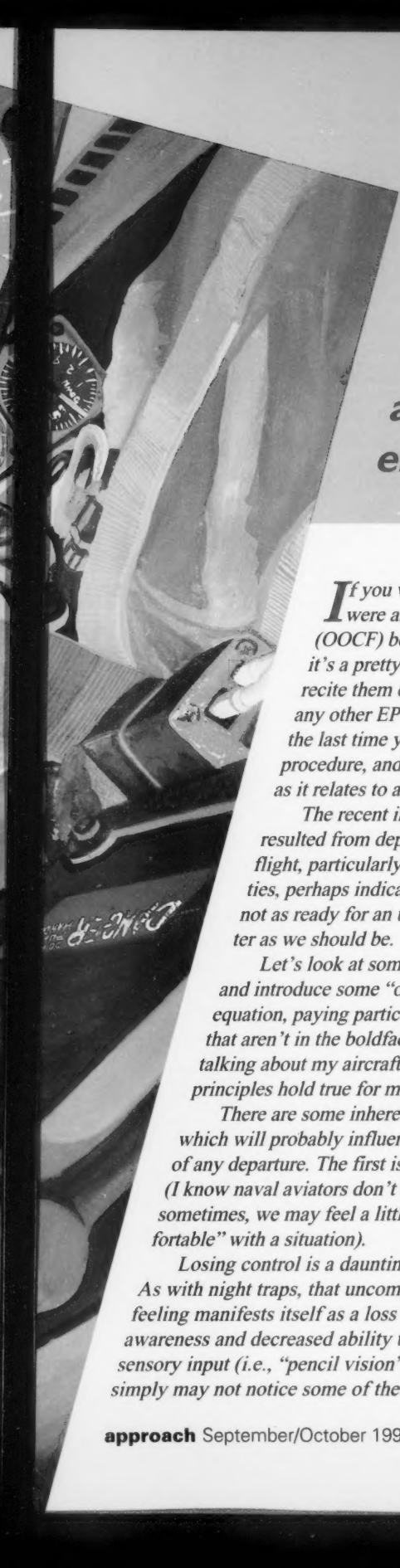
There were several lessons to be learned from this incident. Tower should have never cleared my wingman to land on the short runway since it was still fouled at the end by another aircraft. Debriefs with the aircrew who had this total loss of braking action on the rubber deposits indicated that had they not reached taxi speed before the last 1,000 feet, the aircraft would not have remained on the runway. I am convinced the amount of time spent briefing slick runway, carrier-pressurized tires and maximum landing-fuel weights prevented this from becoming a disastrous event. ◀

LCdr. Firanzi flies with VF-103.

# Trust Your Instruments!

By Lt. Todd Pollard





## **We are not as ready for an unexpected OOCF encounter as we should be.**

**I**f you wear any type of Navy wings and were asked what the out-of-control flight (OOCF) boldface items were for your aircraft, it's a pretty sure bet that you'd be able to recite them error-free and probably faster than any other EP in your arsenal. But when was the last time you went deeper than the rote procedure, and gave some thought to each step as it relates to a typical OOCF scenario?

The recent increase in mishaps that have resulted from departures from controlled flight, particularly in the VF/VFA communities, perhaps indicates that fleet operators are not as ready for an unexpected OOCF encounter as we should be.

Let's look at some of the procedural steps and introduce some "oh-by-the-ways" into the equation, paying particular attention to things that aren't in the boldface. Although I'll be talking about my aircraft—the F-14—the same principles hold true for most tactical jets.

There are some inherent general factors which will probably influence your handling of any departure. The first is the degree of fear (I know naval aviators don't know fear, but sometimes, we may feel a little bit "uncomfortable" with a situation).

Losing control is a daunting experience. As with night traps, that uncomfortable feeling manifests itself as a loss of situational awareness and decreased ability to accept sensory input (i.e., "pencil vision"). You simply may not notice some of the things

going on inside the cockpit during uncontrolled flight.

Temporal distortion is another factor, simply a degrade in your ability to accurately perceive the passage of time. After a spin entry and recovery in the T-2 (typically lasting 40-45 seconds), I often asked students how long they thought we had been out of control. Invariably, the answer was on the short side.

"It felt like about 15 or 20 seconds" was not an uncommon answer.

A similar but opposite distortion is often expressed by aircrew who have ejected. They can frequently recall the sequence of events as if it had happened in slow motion. What's important is that temporal distortion can be a major contributor to a late ejection decision.

Depending on what caused the departure, some other factors may come into play. Midair collision, structural failure, or loss of an engine can all lead to OOCF just as easily as pilot error. However, in these cases, the condition of the aircraft will have a direct bearing on your chances of recovery.

Assessing the status of various systems adds to an already high workload. Furthermore, the pilot's physical condition cannot be taken for granted. In the case of a midair or fully developed spin, there may be some incapacitation or a reduced ability to physically perform the actions required to save the aircraft.

Let's look at some of the steps in a standard OOCF boldface procedure. Are they really as "goof-proof" as they seem?

**Neutralize controls.** Do you know what the visual sight picture is for neutral inputs? (We don't often look at the stick when we're flying). If your stick grip is canted, it might surprise you to see how far off-center a neutral stick really looks. Also, our sight picture is normally formed in 1-G stable flight. During OOCF, we probably won't be looking at things from the same perspective, and that sight picture won't be as valid anymore.

**What about trim?** Since some systems relocate the neutral position, neutral stick or rudder may not give you neutral controls. Do you set up your rudder pedals so that you'll have full throw available, or do you crank them out to give yourself more leg room? What about sitting a few inches higher in the seat under negative G? Could you still get full throw?

**Locked harness.** Most of us don't fly around with our harness locked, particularly in the ACM arena where most departures occur. It is unlikely that your harness will be locked when the airplane lets go. If you don't get this step done in a hurry, you may not be in a position to perform any of the follow-on steps.

Likewise, if you have your lap belts loose (also applicable to the ACM environment), you may be unable to do what needs doing—even after you lock your harness. And the consequences of having an unlocked harness or loose lap belts during an ejection need no restating.

**Check airspeed, turn needle and AOA.** I remember being asked once what color the turn needle was in a TA-4J, and whether it was above or below the balance ball. I couldn't recall, and I didn't get the instructor's point. He explained that in a pressure situation, I might scan the wrong one if I didn't think ahead of time about exactly what I'd be looking for. How sure are you that you will find what you need, read the numbers, and interpret the information in a violently shaking cockpit with an impending ejection hanging over your head?

**Keep in mind that depending on your aircraft, vital information may not be available to you.** In the Tomcat, for instance, we expect to lose one or both engines in a spin. Depending on what is left in the way of electrical power, there may be no more spin direction/yaw rate display, AOA, or turn needle, which will significantly affect our ability to analyze the situation.

**If out of control below \_\_\_\_, eject!** This is normally some AGL altitude, typically 10,000 feet,

implying a constant awareness of the terrain elevation beneath you. Do you have an AGL number in mind for your ejection decision, or will you forget that you're spinning over the Grand Tetons today and eject low?

There's another crucial point to this step: you have to have an ironclad definition of what "out-of-control" means to you. If you notice that your antispin rudder worked and the AOA and yaw rate are decreasing at 10,000 feet AGL, do you stay or do you go? Put another way, will you stay with the jet if it's recovering from the departure or spin, or only if it has recovered. There is no room for waffling here, and this is the kind of call that you must make before you strap in. Many of our brethren have spent the last moments of their lives in an aircraft that they wanted to stay with "just a little longer" because it looked like the situation was improving.

A few closing comments. The OOCF procedure must be performed entirely inside the cockpit up until the wings-level pullout. Trust your instruments! I have seen many people, including fleet-experienced IUTs, misinterpret a departure mode based on seat-of-the-pants cues.

I have also seen a lot of pilots make incorrect control inputs (i.e. pro-spin rudder) and delay or prevent recovery because they were looking outside for spin direction. Particularly in an inverted departure (where roll and yaw are in opposite directions), it is very likely that a pilot will respond to the more visible roll condition and aggravate the yaw condition with an incorrect recovery input.

Finally, know when to eject, then do it. Never go below the mandatory ejection altitude, and never stay with an unrecoverable aircraft—even if it hasn't gotten there, yet. Temporal distortion, the possible miscalculation of AGL altitude, and the extremely high descent rate (commonly in the "seconds-to-impact" regime) make it imperative that you have a game plan and stick to it. The airplane you fly is a replaceable material asset that someone else will pay for; your life isn't. ◀

Lt. Pollard was an upright-inverted spin instructor during a SerGrad tour. He currently flies with VF-21.

*This article discusses preparation and game plans. We also need to be honest about OOCF. If you depart the aircraft, you owe it to your squadronmates (and the community, in general) to debrief it publically so everyone can learn from your experience. OPNAVINST 3750.6Q now requires OOCF incidents be reported via the HAZREP system. We've lost 12 planes since 1988—two per year—to OOCF, and we can't afford to let it drop from anyone's scan.—Ed.*



# My Experience as FOD

By Lt. Grady T. Banister

**A**ll helo bubbas have been there. You're over a small boy's deck when suddenly something cuts loose and goes flying, usually a rag or bit of paper. Out comes your ready-made lecture entitled "Securing Loose Items", which is kept with the "No Green Deck, No Mail" brief. The fellow in the tower quickly sees the error of his ways, and you are secure in the knowledge of your righteousness as you request four box lunches.

Now think of a situation where you are not the on-scene aviation expert. In fact, picture yourself working for a non-hovering-type aviator in an alien big-deck environment. H-60 and H-3 pilots can handle this, but H-46 and H-53 guys just don't do it every day.

We were fueling our tandem-rotor wonder on spot 4 of a carrier deck after a few hours of slinging bombs. We were up button 15 and were following the progress of a flight of two H-53s as we waited for the grapes to do their thing. The Sea Stallions were 10 minutes out as we began to pump.

Five minutes out, and we were filling out the chit and completing the takeoff checklist. Two minutes out, and we gave the break-down signal. Just as the blue shirts broke us down, the Air Boss cleared the two H-53s to land on spots 2 and 3. What we didn't know was that the first H-53 was right beside us when given landing clearance on spot 1. He flew just in front of the angle, giving us a combination of his rotor wash and the 20 knots of wind already down the deck. My bird bounced around on its landing gear and began to roll right. I went to flat pitch and put in opposite cyclic, while my copilot began beeping the engines down to minimum power. Still, the aircraft was on the verge of flying. Finally, we found that pushing the nose down was the only thing that would keep us on deck.

The big helicopter flew from our left to right, and we shifted our inputs into the rotor

wash to prevent tipping over. We didn't have time to rest after Dash 1 finally sat down because Dash 2 was pulling into a flare 50 feet in front of us for spot 3.

Up we went. Again, we took a thorough beating at the edge of ground resonance. Then it was over. Dash 2 set down, we were cleared to lift, and nothing was said outside of our cockpit.

What did I do wrong as a HAC to bring us so close to inadvertent takeoff, a dynamic tipover, and ground resonance? If I had been fully aware of what the other aircraft were up to in the pattern, I would have kept the chains on my aircraft. I relied on the Boss for the safety of my aircraft. Although he is the expert, it was my responsibility to let him know that I was not ready for the other helicopters. CH-46s are not familiar to the carrier, and our fixed-wing brethren don't always know their characteristics.

This was a time when the tables were truly turned. I was the FOD getting ready to fly around the deck. There was no one waiting to give me a lecture on rotor wash, and I definitely did not feel in control of the situation. ◀

Lt. Banister was with HC-6 at the time of this incident. He is currently assigned to HC-3.

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**Still, the aircraft was on the verge of flying.**

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**D**uring the first month of our deployment, we had a breakdown in crew coordination that could have ended in disaster. There were several things out of the ordinary on this flight. The pilot was a senior cat I LSO and former NATOPS officer, who joined the squadron during deployment. This was his first night event. It was my third flight as a prospective CICO. The real mission commander was "short" and due to rotate to shore duty in a couple of days. Finally, we were scheduled for an unusual trap, cat, touch-and-go, and trap for pilot currency.

We briefed and manned on time. Because of system problems on deck, we launched last. We rectified a few more airborne problems and completed our mission.

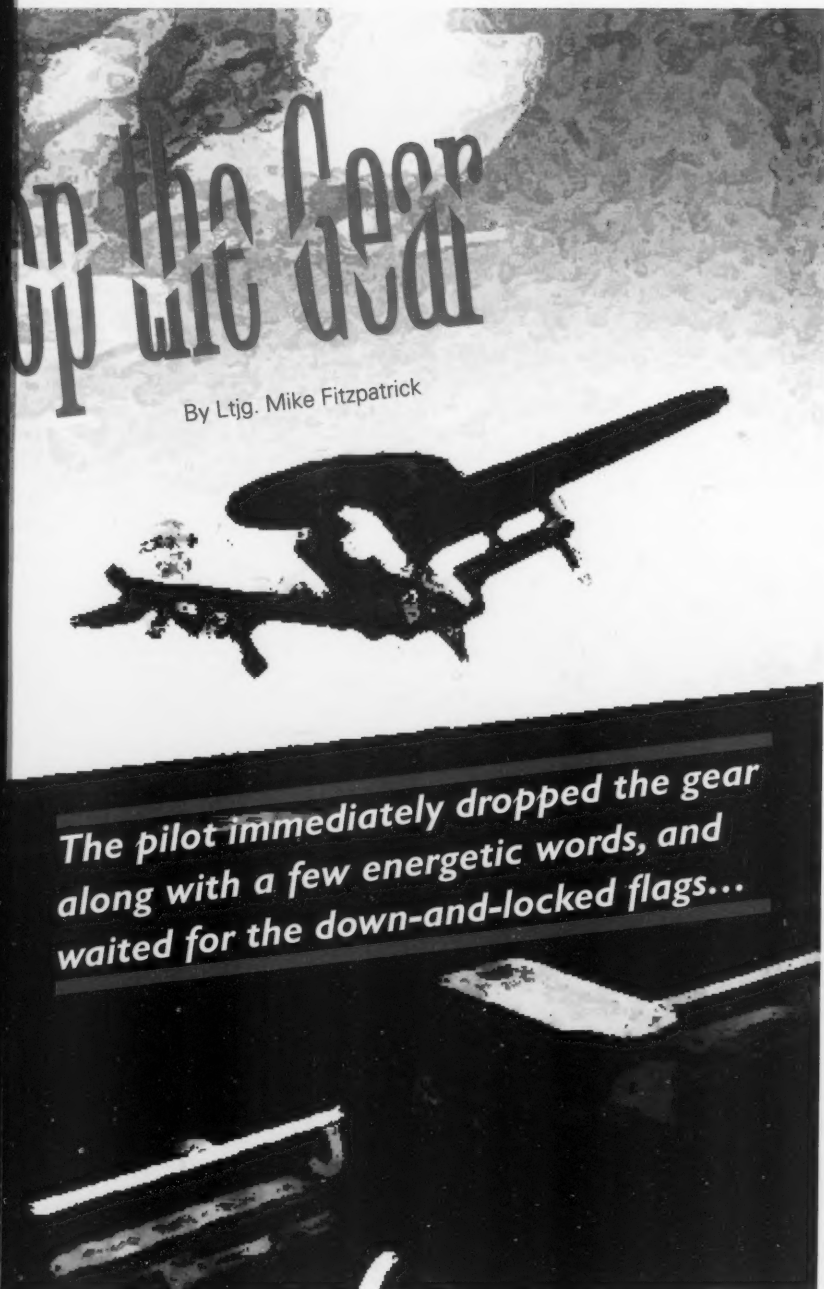
Returning to the ship, our first approach ended with an OK 3-wire. After clearing the wires, we taxied toward cat 1. The Boss and yellow shirts were rushing to get us off the deck, and the copilot barely finished the takeoff checklist before we were in tension.

After the cat stroke, the pilot told the crew that we had a tow-link caution light, while the copilot informed Departure of our problem. We were below max trap in blue-water ops, so fuel conservation became our main concern.

As we headed downwind at 2,000 feet, we troubleshot the caution light with the aid of a squadron rep. Using the checklist and floorboard sight, the copilot determined the gear was centered and could be raised without a visual inspection. He raised the gear, and the caution light extinguished without further problems.

We notified the ship that we had corrected our problem, and we were "hooked" with a turn inbound at seven miles. About this time, the copilot realized that his helmet bag was not in the cockpit.





PH2 John Biviera

Distracted with the search for his helmet bag, the copilot reported lock-on at five miles. At four miles, the copilot told us that his missing bag was in front of the CIC door in the forward equipment compartment.

Still distracted, the copilot did not hear the pilot say for the third time that he did not have good AOA. Finally, the copilot called paddles to report the problem.

We started our descent at three miles while the pilots discussed the AOA problem. At two miles, paddles called, "603, confirm dirty." In the moment of silence that followed, it was instantly clear why the AOA indexer was not working. The gear was still up and locked! It was painfully obvious that because of our preoccupation with the missing helmet bag we had forgotten the landing checks.

The pilot immediately dropped the gear along with a few energetic words, and waited for the down-and-locked flags and visual indications before replying, "603, three down-and-locked."

Maybe it was my imagination, but it seemed rather quiet during the rest of the approach. While waiting for the yellow shirts to chock and chain us after landing, we discussed what had just happened. It was not much of a discussion. Perhaps one of us would have noticed that we were clean before our ball call...perhaps not. Other crews have similar distractions or reasons for flying a perfectly good airplane into the water or landing with the gear up.

The landing phase, or any phase of flight for that matter, is not the time to relax or lose focus on priorities. In this case, our highest priority should have been landing safely, not locating the helmet bag. ◀

Ltjg. Fitzpatrick flies with VAW-113.

# Bravo Zulu



Capt. T.C. Tocwish, USMC  
 Capt. A.M. Hofley, USMC  
 Sgt. M.F. Brungardt, USMC  
 Cpl. C. Saavedra, USMC  
 HM2 D. Garcia  
**SOMS Kaneohe Bay**

After dropping passengers and refueling at the FARP on Molokai, Pedro 50 departed to practice approaches into Lanai Airport. Approaching Lanai, the No.1 engine had an uncommanded shutdown.

Capt. Tocwish (HAC) started procedures for a single-engine inflight failure, while Capt. Hofley (H2P) backed him up with the PCL. The pilots maintained level flight and, suspecting fuel contamination, they set up for an approach to the northern shore of Lanai.

Cpl. Saavedra (crew chief), along with Sgt. Brungardt (SAR swimmer) and HM2 Garcia (corpsman), made sure that the cabin was prepared for a possible forced landing.

Capt. Tocwish started an approach to what he thought was a clear area as Capt. Hofley started and selected the APU, and monitored the emergency throttle.

On short final, the crew saw that the area wasn't safe because of jagged rocks. They made a single-engine waveoff. After leveling off, the pilots tried a restart on the No. 1 engine, observing zero oil pressure and Ng indications. They suspected a failure in the engine-lube system. However, since the engine failure was sudden, and there was no initial loss of oil pressure or Ng, they were still uncertain about the exact cause of the failure. The crew flew southeast to a sandy area and made a single-engine, no-hover landing.

MALS-24 maintenance inspected the aircraft and found that the front-frame accessory drive bearing had failed, producing metal particles that destroyed the drive gears, resulting in the loss of the accessory-drive section and a flameout.

BZs require an endorsement from the nominating squadron's CO and the appropriate CAG, wing commander, or MAG commander. In the case of helo dets, the CO of the ship will suffice. A 5-by-7-inch photo of the crew by a squadron aircraft should also accompany the BZ nomination. Please include a squadron telephone number so that we can call with questions.



Maj. Eric Johnson, USMC  
**VMA-513**

Maj. Johnson was leading a section of AV-8Bs during a low-level ingress into the W176 target area near Okinawa. After starting his descent to 1,000 feet AGL, and accelerating to 450 KIAS, he heard an explosion and felt something hit his head.

Maintaining control and calling, "Knock-it-off!" to his wingman, Maj. Johnson realized that most of his canopy had left the aircraft and that part of the frame was bent back over him, restricting his movements.

His wingman, 1stLt. Eric Dennis, declared an emergency and radioed for an immediate straight-in recovery at Kadena.

Maj. Johnson safed his canopy-shattering system and his ejection seat; ejection was not possible. Realizing that his engine was probably FODed, Maj. Johnson decided to make a fixed-throttle, variable-nozzle landing to minimize throttle movements, and to lessen the chance of engine failure.

A postflight inspection revealed that the engine had, indeed, been badly FODed and that the horizontal stabilizer was badly damaged.



# "Where's the Ball?"

By Lt. Rudy Llobet

**"Thanks, Paddles, that's exactly what I saw."** How many times have you walked away from a debrief saying that, but thinking, "I wonder where his seeing-eye dog is"?

As a squadron LSO, I've seen that familiar look of disbelief from more than one aviator. Well, for the first time in my life, the guys on the ball were seeing something completely different.

We were in the middle of late summer work-ups. Other than a slightly pitching deck, it was a beautiful day for aviating and waving. With my team leader backing me up in the I-formation, I got a chance to control the afternoon's first recovery. After catching all the Tomcats and Hornets, things started falling apart.

The next aircraft was an Intruder, which was a little high out of the turn. Rolling wings level at the start, he settled like a ton of bricks. After two requisite "Power" calls and a taxi I-wire, I grumbled, gave the mandatory "No-grade," and started waving the next Intruder. My backup LSO started Dash 2 off with, "Don't go low," followed by, "You're low," and a waveoff.

By now, CAG Paddles glued himself to the third headset. My backup and I checked the commanded hook-to-ramp and hook-touchdown point and found them to be normal; the basic angle remained at 3.5 degrees.

The Dash 3 Intruder was now rolling into the groove with a huge rate of descent.

"Boy, we're having a bad Intruder day," was all I could think. After waving him off, one of the Intruders (no doubt a seasoned deckspotter) chimed in, "Paddles, 506. I never saw lower than a cell high; something's wrong with the lens."

The backup LSO rechecked the hook-to-ramp as I swung my head back to look at the lens. The whole lens stack was tilted to the right! A quick glance at the roll-angle gauge showed the lens canted all the way to zero degrees.

CAG Paddles had the right idea. While we were trying to figure this thing out, he told the Boss we needed MOVLAS. After killing all the snakes on the platform and in the tower, we managed to recover the rest of the air wing. Before making the debriefing rounds, we QA'd the passes and made sure anyone that was affected by lens problem got a "no count" for their pass.

We learned that the ship's gyros had failed, and anything that fed off them for stability had also failed. The problem was that the command gauges failed to the last setting. The only valid information came from the older, soon-to-be-replaced roll-angle gauge, which tells us physically what the lens is doing right now. The end result is that a center ball pass on our boat would have put an Intruder's hook point 129 feet short of the I-wire, or about 45 feet from the rounddown. With only 33 inches of hook to ramp, a low ball and a slow approach speed could have been fatal.

Now our LSO teams specifically define and divide up platform responsibilities. Quick communications between the tower, the ship, the LSO platform, and even the pilots will avert any near disasters.

CAG Paddles correctly decided to switch to MOVLAS rather than linger over the cause of the problem. I never thought I'd be hearing, "That's not what I saw, paddles," and agree. ◀

Lt. Llobet flew with VS-22. He is currently serving an exchange tour at Randolph AFB.





LCdr. David Baranak

**A**viators are creatures of reinforced habit. We constantly learn, memorize, and review emergency procedures, NATOPS limitations, and tactics. Transitioning to the new F-14D after 1,200 hours in the F-14A made that process even more challenging. The F-14D is just similar enough to the F-14A to get you in trouble. New engines, avionics, radar and displays. New cockpit layout. Awesome HUD. I had been in love with the F-14A for more than a decade, and my new girlfriend definitely had more than a new paint job.

One of many nice features of the F-14D is its caution legend on the HUD and MFDS. Since the primary attitude instrument is the HUD, it made sense to display major emergencies like engine fire or engine stall on the lower portion of the HUD and MFDs (pilot's and RIO's). The pilot also has the classic Tomcat stall-warning tone in his ICS but not the F-14A's engine-stall warning lights.

As the first squadron to transition to the F-14D, and the first fleet squadron to do any serious carrier work with the new Tomcat, we expected to find some minor carrier-related bugs. What no one expected was to have any trouble with the new, stall-resistant, GE-110 engines.

The F-14A had problems with engine stall in the TF-30s for decades. Its pilot goes down the cat stroke in full afterburner with the hairs on the back of his neck standing tall. With the new motors in the F-14D, and with new pilots straight from the FRS, who had never flown the F-14A, the Tomcat's ever-present engine stall off the cat has become one of those memorize-but-never-expect emergencies.

I was ready for a day 2 v 2 hop against our air wing's Hornets; I definitely was not prepared for a dual-engine stall.

It was a beautiful day in the western Pacific. Warm and clear. Time zones were passing by daily, and our next port call was on the horizon. I was somehow trapped on the "night team," and was more than ready for a Case 1 launch and recovery. I taxied across the JBD.

"Roger a 67,000-pound shot," my RIO said over the ICS.

"OK, that gives us 500 pounds of gravy," I replied.

As my wings came out and flaps went down, I finished the takeoff checks by setting the trim to one degree nose up.

"Hands up for arming," I said as we stopped just short of the catapult shuttle. "If we lose an engine, I'll set 10 degrees on the water line, 14 units max AOA. I'll counter any roll or yaw with rudder, supplemented with lateral stick. Throttles will remain at military or min burner. I'll get the gear up and jettison emergency stores if required."

The taxi director slowly taxied us into the shuttle. I could feel the launch bar tightening as we traveled the last few inches into the shuttle.

"Tension," I noted, and quickly moved the throttles forward, locking them into the catapult detente. "Stick forward, aft, left, right, rudders right and left," I called over the ICS so my RIO could verify my control surface movements.

"Hydraulics, oil, nozzles, rpm, and EGT are normal. CAP panel clean. Are you ready to go?" I asked before saluting.

"Ready," my backseater replied.

Hand salute. The catapult officer re-confirmed all his checks and touched the deck. The familiar Gs compressed my body as we accelerated down the catapult—0 to 150 knots in less than two seconds. And then the unthinkable happened. The stall warning tone came on over the ICS, indicating an engine stall.

I quickly glanced at the lower portion of the HUD to verify which engine had stalled and couldn't believe what I was reading: "L engine stall, R engine stall."

Glancing down at the engine instrument group (EIG), I saw solid lines of abnormally high indications on both engines. We had just stalled both engines on the cat stroke. Under Gs, I managed to force out, "Dual-engine stall. Stand by."

Still accelerating down the flight deck in the shuttle, I prepared for my glider liftoff once clear of the ship. Clearing the flight deck, I set 10 degrees on the water line, half expecting to see the canopy come off in a command ejection initiated by the RIO. However, my Tomcat climbed away normally. The voice of the Boss boomed over button 6, "Clearing turn off cat 1!" (Sometimes I wish I could just stop time and tell the Boss what I really think.)

The stall tones went away and the HUD legend cleared. I glanced down at the EIG to see all normal indications.

"I got it, I got it," I said over the ICS, and then gave the Boss a wimpy clearing turn—after his second booming request over the radio.

**"I got it,  
I got it,"  
I said  
over the  
ICS.**

After cleaning up the aircraft and climbing overhead the ship, my second-tour RIO and I tried to figure out what happened. Conferring with our rep on button 7, we felt that it was an erroneous stall indication. If we had FODed both engines down the cat stroke so catastrophically as to have stalled both engines, they should not have been reading completely normal now.

We held overhead the ship while my wingman did a 1 v 2 ACM hop, and then we recovered uneventfully.

The problem was not in the stall-warning system, as one would think, but rather that the sudden G force kicked the system into instrument test. During instrument test for the first five seconds, the stall-warning tones sound in the pilot's ICS, L and R engine stalls appear on the HUD and MFDS, and the EIG tape indications of rpm, EGT and fuel flow form a straight line at the top of the gauge (in other words, maxed out).

I had been hasty in my assessment of the condition of the engines and had noted them pegged out. However, in an engine stall, rpm should be falling and fuel flow should be at some intermediate value. Only EGT would be rising or pegged out. They should not all form a straight line on the EIG.

I had been lured by the F-14D's awesome HUD and emergency legends to take a cat stroke looking through the HUD. A stalwart F-14A scan habit is to concentrate on the EIG and standby attitude indicator on the cat stroke because of the unreliability of the engines and VDI.

In our squadron, the same dual-engine stall has occurred on a cat shot two other times. On a black night, this type of instrument failure would be exceptionally dangerous because of lack of flyaway cues. False stalls down the cat stroke are now a part of our briefing guide and corporate knowledge base.

In my cockpit, I recommend to the RIO that he stay on emergency ICS so that he can hear stall tones. I am back in the F-14A mentality and scan the EIG and standby gauge going down the cat, day or night. The emergency procedures remain the same "set 10 degrees on the water line, not to exceed 14 units AOA." However, F-14D pilots who experience a dual-engine stall must pay closer attention to what the EIG is actually telling them (instrument test vice actual stall), and look for a positive rate of climb. ◀

LCdr. Wood flies with VF-11.

# Waveoff, Wave

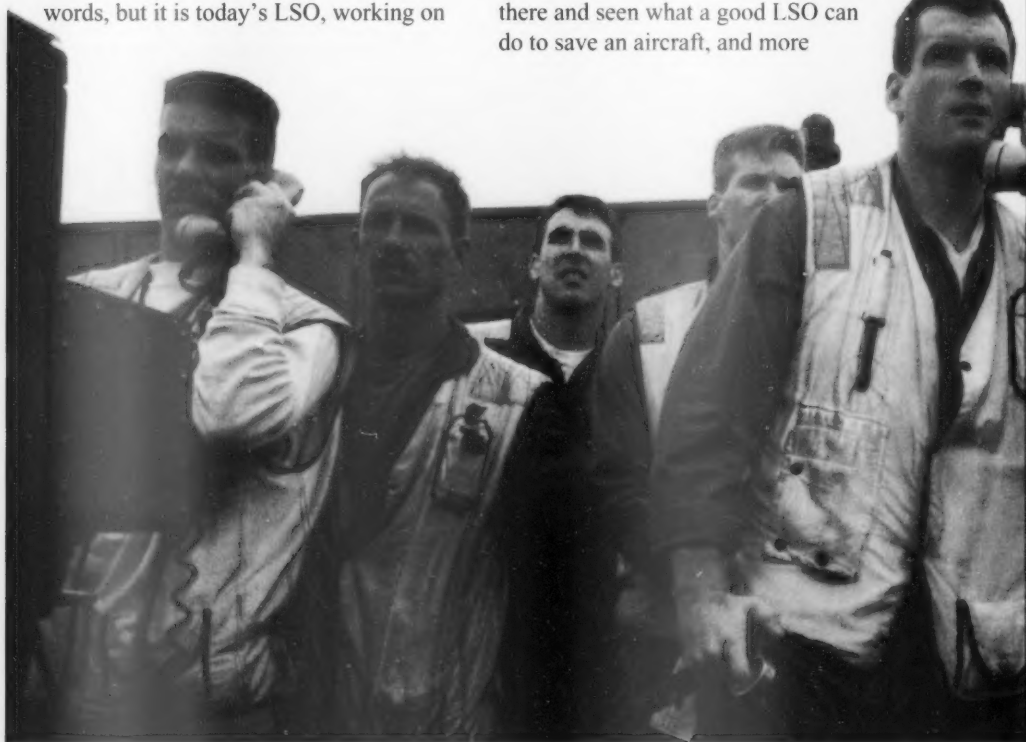
**I**'m not sure when I first heard the saying, "Never say you should have waved that plane off. If you think it should be waved off, do it." It is not important who said it, but its validity still rings true today.

If I could change one thing about the LSO community, or rather, point out the one mistake I believe we make on a routine basis, I would make paddles wave off more aircraft. I don't say that capriciously or with any great joy, although the pilots in my former air wing may disagree. I say it in the hopes of preventing the next ramp strike, ramp tickle, hook slap or any other mishap at the back end of a ship.

It is easy to sit at my desk writing these words, but it is today's LSO, working on

the platform right now, who must make this decision. I have never been able to comprehend why we have a hard time hitting the pickle switch. I believe it is because of the real or perceived pressure to get guys aboard. In the LSO NATOPS—and I really do not like quoting a NATOPS manual—our primary responsibility is "the safe and expeditious recovery of non-V/STOL aircraft aboard ship." Pretty cut and dried, isn't it? Yet I believe we violate that charter daily to keep up the boarding rate. We seem to be more concerned with expeditiousness than with safety.

I realize there are times when aircraft have to get aboard. We have all been there and seen what a good LSO can do to save an aircraft, and more





# Waveoff, Waveoff!

By Lt. Tom Quinn

importantly, the aircrew. But far too often, during normal cyclic ops, we press the waveoff window or take a marginal pass, hoping nothing bad happens and that the recovery finishes so we can still have time to catch midrats. That is a crucial, unacceptable mistake in the unforgiving world in which we work.

What does it cost to wave off an aircraft? The only two answers I can come up with are time and money. Time into the wind can be a valid concern, given the restricted work area that aircraft carriers work in. But really, how often do we, no kidding, need to catch an aircraft because of sea room? More importantly, how many times do we say we have to catch a plane when we really have the sea room to do it safely? Remember, our charter is the safe and expeditious recovery, not the expeditious and safe recovery. As far as money is concerned, how much does it really cost to wave off an aircraft? Worst case I figure is about 1,000 pounds of gas at night for a typical jet. The actual monetary value of that gas pales in comparison to the benefits derived from a timely waveoff.

Who is affected by a waveoff? Obviously, the pilot flying the aircraft is affected, and he will not make the same mistake again. As an LSO, your waveoff call not only affects

the pilot flying the pass, but also every aircrewman who hears the call or sees the pass. Your call sends a message to the air wing that they better bring their "A" game today because paddles is not taking trash. How many times during a Case III recovery have you heard a waveoff call and mentally tightened your harness so the same fate would not befall you? How many times in the ready room have you watched a pass on the PLAT and seen the waveoff call only to mentally prepare yourself to work a little harder on the ball? Hitting the pickle switch may cause you a little heat at that moment, but the long term benefits far outweigh any momentary discomfort.

During each and every recovery, LSOs make decisions that truly affect the safe and expeditious recovery of aircraft aboard ship. Do not allow the real or perceived pressure to get guys aboard compromise your waveoff window. When you compromise those parameters, you compromise safety. No one in their right mind would consciously violate safety; we are trained not to. Yet we still read messages about hook slaps where the LSO didn't hit the pickle switch, or did not call for a waveoff.

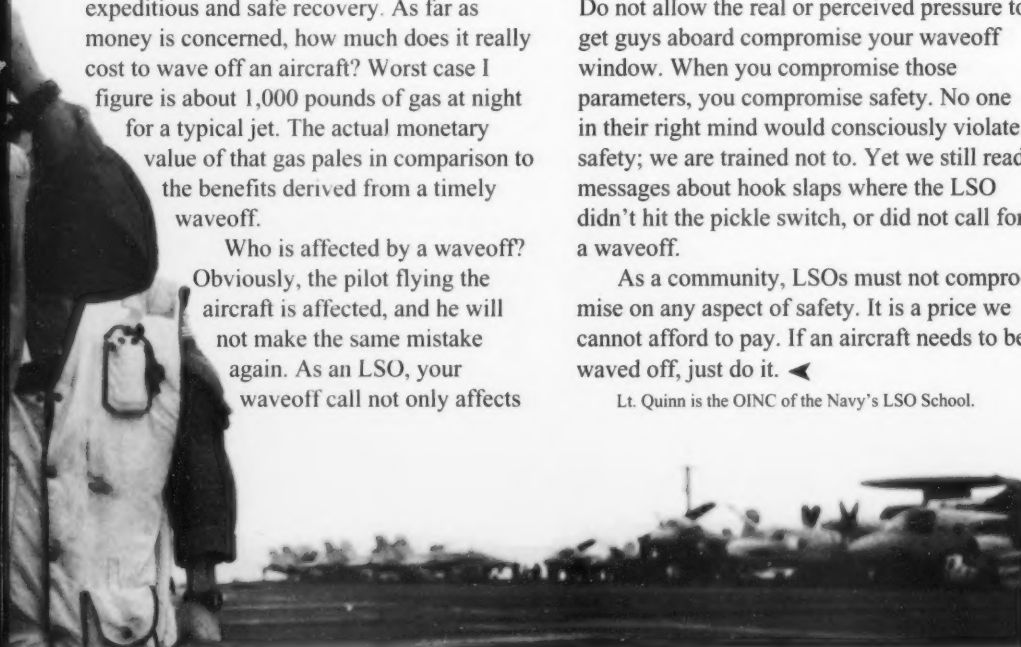
As a community, LSOs must not compromise on any aspect of safety. It is a price we cannot afford to pay. If an aircraft needs to be waved off, just do it. ◀

Lt. Quinn is the OINC of the Navy's LSO School.

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**"Never say you should have waved that plane off. If you think it should be waved off, do it."**

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# St. Paddy's Day



**I**t was one of those days in a naval aviator's career that you will never forget. You know the type—first solo, first trap, first night cat shot, and of course, first day as the V-2 division officer. Earlier that St. Patrick's Day in 1986, I had launched my roommate to the beach in a COD. I remembered him saying (with relief in his voice) that he “survived his shooter tour,” and that he wished me the same. It was the end of a work-up cycle, so a flyoff was the order of the day.

To commemorate St. Patrick's Day, we were decked out in green “Irish Shooter” jerseys to show our esprit de corps. The cat crews beamed with pride.

The time had finally come, the last six aircraft to launch. You know about these aircraft: they're the six that went down on an earlier launch, needed just a little more maintenance, or were buried in spots on the hangar bay that only the Handler knew. Anyway, it was their time to enjoy the beautiful spring day with perfect launch conditions—a calm deep blue sea and 15 knots right down the angle deck.

“On the flight deck,” the voice of the Air Boss boomed, “it's time for the 1600 launch. Time again to get those goggles down, sleeves rolled down, life vests on and securely fastened.”

Since the launch was for only six aircraft, and the landing area had to be kept ready, we decided to use the waist cats. We also had a new lieutenant commander in the division, and because shooting the waist is more difficult than shooting the bow, we decided to break him in on the waist with a “no pressure” launch.

“Hey, you with the camera, get off the port catwalk!” (There was that voice again. How does he do that?)

Next, an A-6 taxied onto cat 4. Weight board, OK.

Check the wind, cat charts, and set the CSV. OK, New Guy, you have to check cat 2 and the deck-edge antennas, look at the foul line, and...

Look, here comes an A-7 for cat 3. Check the weight board, different cat charts. OK, now look back at the hookup petty officer on cat 4. First ready on cat 4. See? The waist scan is very different. cat 4, take tension.

Tension was taken, cat 4 final ready, throttles advanced to MRT...bang! A compressor stall. Though stalls don't happen

# Bonfire

By Cdr. Gerard A. Mumfrey II

frequently, I reached into my bag of shooter experience and remembered that the J-52 sometimes did this when the pilot advances the throttles rapidly. OK, New Guy, watch me suspend him.

"Hey Boss, what's the tower rep say?"

"Stand by. Let's do it again and this time, the pilot will advance the throttles to MRT slowly."

That voice in the tower had all the answers.

OK, New Guy, scan pattern, wind, CSV check, tension, slow advance of the throttles and...bang! Left engine stall again. You suspend him, New Guy, and I'll sort this out with the Boss.

"Hey Boss, I think this one's down. Guess we'll have to crane it off pierside tomorrow."

"Stand by..."

Maybe it was just my imagination, but when I looked up to the tower to where that voice resided, I saw a guy in there talking on at least three phones at once. What happened to the "no pressure" launch?

"Try it one more time," the "voice" said. "Shoot 'em."

Wait a minute. I remembered that in flight school when the instructors talked about the whole good-bad thing, they said compressor stalls were bad. (Important safety tip)

Nevertheless, scan pattern, third runup, MRT without compressor stalls. Back to instruction, pilot salute, return salute, head in headrest, final scan, thumbs up everywhere, New Guy touches the deck, deck-edge petty officer starts his scan...

No, no, no, look back at the aircraft, New Guy, always look at the... Wow! Flames erupting out of the port engine wrap-around panels. Suspend, suspend!

I leaped over New Guy, crossed arms leading the way. Fortunately, the deck-edge petty officer hit the correct switch and suspended cat 4. As I stood up on the cat

track and gave the engine fire and cutoff signal, the canopy blew off, and now we had a major aircraft fire on the flight deck. Fuel and flames poured from the aircraft and into the launch-valve control room. Instantly, cat 4 was on fire.

Oh, those never ending flight-deck drills, the ones you really hate by the second week of a work-up period. Well, at a time like this, all that training pays off. In less than two minutes after the suspend of cat 4, fire teams formed and extinguished the fire, the flight crew made an emergency egress, the E-3 sailor who had the steam watch in the launch-valve control room activated the steam to smother and save cat 4 from any major damage. The A-6 was destroyed, but no one was hurt.

Where do you start with the lessons learned on this one? Flyoff, get-home-itis, don't want to crane one off, ignoring that intro in NATOPS about the blue book not covering all situations and using good judgment.

We were very lucky because if the situation had been different (night, bad weather, max aircraft and ordnance on the flight deck), the outcome might have been different, too.

By the way, I survived my shooter tour, and we had to crane off the A-6 pierside the next day anyway. ◀

Cdr. Mumfrey is the XO of VFA-204. He was serving in USS *Forrestal* at the time of this incident.

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***I saw a guy  
in the tower  
talking on at  
least three  
phones at  
once. What  
happened  
to the "no  
pressure"  
launch?***

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# 55-Mi. 10 30 50

## 10 5 0 20 40

By Lt. Samuel D. Schick

# Bingo? *No Problem!*

**W**e were flying our four Hawkeye aircraft to the warning area off Jacksonville for the fly on and CQ for COMPTUEX. We planned to send two aircraft followed by the remaining two the next day. A tropical wave had moved over most of Florida, so we requested an OPARS for more in-depth weather information for the brief.

The squadron had just completed a three-week SFARP detachment and hadn't been to the carrier for nearly two months. FCLPs had gone well, and I was looking forward to operating with the air wing again. I was a 2P with about 650 hours and another 600 hours as a Hummer NFO. The CAPC was a lieutenant commander with well over 3,000 hours of flight time. The backend crew included our new XO, an O-4 department head, and our CAG staff rep.

Both aircraft were loaded and ready, and all we needed to do was brief and man up. The briefed weather was typical for that time of year for the southeastern portion of the United States. The forecast contained numerous broken and overcast layers with the ever-present possibility of imbedded thunderstorms. The freezing level was about 10,000 feet.

In the warning area, winds were expected to be 25-30 knots, with ceilings at 3,000 feet. Not a great forecast, but we had all seen this type of weather before and were ready to press on.

The weather was great until southern North Carolina, where we entered the goo at FL220. Ice immediately began accumulating under the windscreen wipers (the easiest method of checking for icing on the Hawkeye). We turned on the engine anti-ice, and periodically checked the props and wing leading edges for build-ups.

For about an hour, things were fine. When we were 100 miles from the ship, where we encountered heavy mixed icing. We waited until we had about 1/4-inch on the wings, then activated the wing and tail de-ice systems. I immediately requested a descent to 9,000 feet to get below the freezing level. We continued inbound to the ship and eventually ended up at 6,000 feet overhead the carrier. We were in a broken-to-overcast layer and could see that the cloud deck continued down for at least another 4,000 feet. The ship still called for a Case I recovery, although we knew that the weather was nowhere near the 3,000/5 requirement. Obviously, CATCC hadn't taken a look outside recently.

To compound matters, paddles called winds over 40 knots with a 4-degree glideslope. We continued to circle overhead, trying to maintain a visual on the ship, but using mainly the TACAN. Because of the erratic direction of the winds, only about one in three aircraft was getting aboard.



The ship was calling a 1.7 Hawkeye VFR bingo for NAS Mayport. We didn't understand why they were using Mayport, with only one runway and the potential for a large number of air wing divers. We computed our own bingo for NAS Cecil to be 2.1. Cecil Field had four runways with arresting gear available. By this time, we were down to 3.5K on the gas, so I asked our crew to verify the weather at both Mayport and Cecil (IFR bingo for Cecil was now only 400 pounds away).

Finally, someone came up on the radio and recommended Case III. We were vectored into the Case III box pattern. Both the CAPC and I needed two touch-and-goes and two traps before we could go at night. The CAPC was in the left seat, and we were down to 2.5K after his first two bounces.

A number of things happened at this point. First, we extended much further downwind than we had anticipated before hooking to final. Second, our port low-fuel light illuminated, indicating that we had 200-300 pounds less fuel than we thought. We realized we had to get aboard the next pass.

We quickly discussed our options and declared bingo fuel, figuring to go to Cecil Field. At three miles on final, we were immediately told to clean up and bingo. Our initial steer was 260 degrees for 55 miles.

I changed our squawk to 7700 and pulled out the pocket checklist. As I read the specifics of the bingo profile, Strike cleared us to switch up Sealord. I declared an emergency, and we received priority handling. We wanted to go to Cecil because of its multiple runways and arresting gear. However, en route, Sealord told us Mayport was closer and available. The ship was also calling this our primary divert.

The CAPC seemed hesitant to commit to Mayport but conceded after a quick discussion. Mayport was off our right wing, so we began a descending turn.

Things were looking pretty good (or so we thought), until Approach told us, as we passed through 5,000 feet and 15 miles out, that a Prowler had just taken the short-field gear. The only runway was now closed! Now they were asking us if we wanted to go to Cecil! After a few expletives from the CAPC,

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***Immediately,  
I requested  
a descent to  
9,000 feet  
to get below  
the freezing  
level.***

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**We had  
gotten so  
involved  
with setting  
up for the  
approach  
that the  
landing  
gear was  
still up...**

we determined that we did not have the gas and would continue to Mayport.

By now, it was pitch black outside. We broke out at about 900 feet, but because of the driving rain, we could only see 1-2 miles. As we approached the field, Approach turned us over to Tower, who reported that the EA-6B was still in the arresting gear and unable to clear the runway. Our fuel state was about 1,000 pounds with 300 pounds in the left and 700 in the right.

After two more turns over the field, with the Prowler still on the runway, we told Tower that we were going to land beyond the Prowler. With an 8,000-foot runway, we figured we had 5,000 feet available beyond the EA-6B and could still use the long-field gear if needed.

We finally received clearance to land. We briefed procedures for engine failure in case either of the engines flamed out during the approach.

The CAPC had his hands full setting up for the unusual approach at night in driving rain and poor visibility. He had to give the EA-6B enough altitude clearance, yet land using as much runway as possible. We were rolling through the 90-degree position when I realized we had gotten so involved with setting up for the approach that the landing gear was still up. I immediately initiated the landing checklist and completed it by the time we rolled onto final.

We touched down with 5,000 feet remaining, and used 2,500 feet on the rollout.

By the time we taxied clear and shut down, we had 200 pounds in the left tank and 600 pounds in the right.

Looking back on that flight, there are several lessons to be learned. Obviously, the weather played the major role in our decision-making process. Except for the first 30 minutes of the flight, the weather was marginal at best, and we should have considered that it would remain that way or deteriorate. Given the conditions at the ship and the poor boarding rate, we should have recommended going to Case III much sooner and not toughed it out to maintain the overhead Case I pattern. The saved time and fuel would have given us several more opportunities to get aboard.

We all know how many times poor decisions have been made based on inaccurate ship forecasts and observations. There is no better observation than that of those actually flying in the weather. With the possibility of a large number of divert aircraft, we should have decided sooner to use Cecil Field as our own bingo field and made that recommendation to the ship.

Even though we confirmed that both airfields were indeed VFR (1,000/3), an IFR bingo fuel would have been the smarter choice because of marginal weather and approaching nightfall. In this case, we landed safely in difficult conditions with very little fuel remaining and were able to walk away. With any other problems, the situation could have been different. ◀

Lt. Schick flies with VAW-125.

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# Letters

Re: "Sound Judgment or Basic Knowledge?" and  
"From the Safety Officer" (June '94)



Approach welcomes letters from its readers. All letters should be signed, though names will be withheld on request. Address: Approach Editor, Naval Safety Center, 375 A Street, Norfolk, VA 23511-4399. Views expressed are those of the writers and do not imply endorsement by the Naval Safety Center.

*NAS North Island*—I can't imagine any aviation officer who would offer the section in NATOPS concerning sound judgment as an explanation (or excuse) for not learning procedures. Our lives and aircraft often depend on our knowledge of these procedures and ability to use them under stress. Adherence to NATOPS is quite another subject.

The foundation of all our procedures—normal and emergency—is experience and systems knowledge. It is this same experience and knowledge that should allow deviation from NATOPS.

While there may be many instances when the clause allowing deviation from established procedures is essential, at least two immediately come to mind. First, when situations arise that are not covered in NATOPS, aircrew must rely on their experience as aviators and

knowledge of their aircraft to guide their decisions.

A second situation is when unique circumstances such as weather, operating area, or compound emergencies make adhering to NATOPS impractical. At these times, aviators must use good judgment, cultivated throughout the training command as "headwork," to decide on the best course of action. Also, they must be ready to explain and take responsibility for their actions.

In nearly all cases, strict adherence to established NATOPS procedures is the safest way to do business. However, it's important to recognize that there are times when deviation is required, and the sound-judgment clause is essential.

Lt. Alan E. Bell  
VS-29

## Anymouse

### Pushin' the Mission

One of our helicopters launched from the ship with a full load of combat-loaded troops after a hover check requiring 98 percent torque. The CO said we had to "accomplish the mission."

He was flying with a newly designated HAC. The skipper coerced the first lieutenant into sliding over the deck edge, against the junior aviator's better judgment. They launched instead of setting the aircraft back down on the deck.

The HAC was afraid of being "shot" by the CO—not flying, bad fitreps or other forms of punishment, which had prevailed in the squadron.

During an AOM, the CO said that he would "do it again," which left his officers stunned, but afraid to speak up. Finally, one brave captain began quoting NATOPS to prove that sliding over the deck edge after pulling 98 percent

torque in a "HIGE" was not safe and should not be done.

Decreasing the intimidation factor and increasing respect for NATOPS and its limitations will help prevent loss of life and aircraft.

Afraidtogetshotmouse



## I Didn't Get an OK Because:

1. The sun was in my eyes.
2. The sun was in paddles' eyes.
3. The "tough" team was on the platform today.
4. I didn't like what the ball showed me so I scanned line-up.
5. The PLAT wasn't aligned, so paddles used my pass to calibrate his eye.
6. The Boss yelled at me, so I couldn't concentrate.
7. I thought it was MOVLAS.
8. The ship was listing.
9. The airplane was out of rig.
10. The RIO talked too much.
11. The RIO didn't talk enough.
12. I didn't have a RIO.
13. The XO dared me to get a 1-wire.



